UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,915	03/11/2004	Timothy G. Deboer	CA920030075US1	7010

7590 06/15/2007

Mark S. Walker
International Business Machines
Intellectual Property Law
11400 Burnet Road
Austin, TX 78758

EXAMINER	
DENG, ANNA CHEN	

ART UNIT	PAPER NUMBER
2191	

MAIL DATE	DELIVERY MODE
06/15/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/798,915	DEBOER, TIMOTHY G.	
	Examiner	Art Unit	
	Anna Deng	2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *3/11/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to application filed on 3/11/2004.

2. Claims 1-18 are pending.

3. Claims 1-18 have been examined.

Priority

4. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

5. The effective filing data for the subject matter defined in the pending claims in this application is 11/27/2003.

Drawings

6. The examiner contends that the drawings submitted on 3/11/2004 are acceptable for examination proceedings.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 7—12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter, or otherwise lacks patentable utility.

Claims 7-12 set forth a computer program for competitive peer programming in an environment that is computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-

readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F. 3d at 1583-84, 32 USPQ2d at 1035 (see 1300 OG 142142 (November 22, 2005) (in particular, see Annex IV (a)). (see MPEP 2106.01 "Computer-Related Nonstatutory Subject Matter") (in particular, see "I. FUNCTIONAL DESCRIPTIVE MATERIAL: "DATA STRUCTURES " REPRESENTING DESCRIPTIVE MATERIAL PER SE OR COMPUTER PROGRAMS REPRESENTING COMPUTER LISTINGS PER SE").

Claim Rejections - 35 USC § 103

9. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haikin US 6, 757,893 B1 (hereinafter Haikin), in view of Blackwell et al. US 2005/0166094 A1 (hereinafter Blackwell).

Per Claim 1:

Haiking teaches

- A method for competitive peer programming in an environment where each of a first and a second developer can make changes to any of a plurality of sections of source code (Haikin, col. 1, lines 7-19, "the present invention provides a system for use by software developers during the development and maintenance of the software source code of a software system, whereby modified versions of the source code are tracked and stored on a line-byline basis within a source code storage. Because modified versions of the software source code are tracked and stored on a line-by-line basis, it is possible for multiple software developers to work on the same software source code at the same time, while still providing historical version tracking of all modifications to each of the source code lines") comprising the steps of:
- a) enabling said first developer to make changes to a first section of source code thereby producing a modified section of code (Hiakin, col. 1, lines 7-19, "it is possible for multiple software developers to work on the same software source code at the same time, while still

providing historical version tracking of all modifications to each of the source code lines" emphases added);

- b) providing access to said modified section of code (Haiking, col. 3, lines 20-30, "source code can be accessed and modified by more than one software developer at a time", emphasis added);

Hailin does not explicitly teach

- c) enabling testing of said modified section of code to produce a test result;
- d) enabling comparison of said test result with a reference test result; and
- e) based on the comparison of step d), enabling said second developer to make changes to a second section of source code thereby replacing said modified section of code and repeating steps b) through e) with said first and said second developers exchanging roles, until said comparison indicates no further changes are required.

However, Blackwell teaches

- c) enabling testing of said modified section of code to produce a test result (Blackwell, [0020], The testing system of the present invention can include a variety of features, including automatically determining and tracking linkages between complex software system components, automatically producing reports to show what test cases need further testing, identifying what test cases from previous work were affected by a modification to the system, and enabling auditing of changes"; and [0081], " ..."testing" generally refers to the process of operating a system or component of a complex software system under specified conditions, observing or recording the result, and marking an evaluation of some aspect of the system or component");
- d) enabling comparison of said test result with a reference test result (Blackwell, [0077], "a "script" is a written description of the set of transactions to be executed in a test case and a list of expected results for comparison to the actual results") and
- e) based on the comparison of step d), enabling said second developer to make changes to a second section of source code thereby replacing said modified section of code and repeating

steps b) through e) with said first and said second developers exchanging roles, until said comparison indicates no further changes are required (Blackwell, FIG. 12, steps 340-348, [0196], lines 26-38, "After the scripts are executed 340 to run the tests, output results are analyzed 344 and compared to expected results to determine if any changes are needed in the code 346. If the results indicated no changes are needed, the task of modifying and testing a component may be considered to be completed 348. If further changes are needed, steps are taken to identify the component or components of complex software system that require modification 342 (typically the recently modified component is most likely to require further debugging or other modifications, especially if the complex software system was working acceptable prior to modification of the component)").

It would have been obvious to one having ordinary skill in the computer art at the time of the invention was made to modify the method disclosed by Haikin to include "c) enabling testing of said modified section of code to produce a test result; d) enabling comparison of said test result with a reference test result; and e) based on the comparison of step d), enabling said second developer to make changes to a second section of source code thereby replacing said modified section of code and repeating steps b) through e) with said first and said second developers exchanging roles, until said comparison indicates no further changes are required" using the teaching of Blackwell. The modification would be obvious because one of ordinary skill in the art would be motivated to provide a testing tool automatically executing all of or a subset of the test scenarios associated with the interrelated components that may be affected by the change as once suggested by Blackwell (Blackwell, [0021] and [0025]).

Per Claim 2:

The rejection of claim 1 is incorporated, and Haikin further teaches first section of source code and said second section of source code are different sections (Haikin, col. 5, lines 46-55, "the special editor allows a requesting software developer to view any version of any source code line, including prior

versions that reflect modifications made either by the requesting software developer or by another software developer ... The special editor can also allow a software developer to access, modify, save and integrate versions of ... above regarding source code lines").

Per Claim 3:

The rejection of claim 1 is incorporated, and Haikin further teaches first section of source code and said second section of source code are the same section sections (Haikin, col. 5, lines 39-41, "Thus, multiple software developers can concurrently access and modify the same source code lines referenced in a virtual file", emphases added).

Per Claim 4:

The rejection of claim 1 is incorporated, and Blackwell further teaches reference test result is produced from a version of said first section of source code before said changes were made (Blackwell, [0052], "storing results of the executed test scripts for later comparison with expected results for the executed test scripts").

Per Claim 5:

The rejection of claim 1 is incorporated, and Blackwell further teaches reference test result is produced from a version of said second section of source code before said changes are made (Blackwell, [0052], "storing results of the executed test scripts for later comparison with expected results for the executed test scripts").

Per Claim 6:

The rejection of claim 1 is incorporated, both Haikin and Blackwell further teaches a third developer can make changes to any of a plurality of sections of source code and steps b) through e) are executed separately with said second developer being replaced by said third developer (Haiking, col. 3, lines 20-30, "source code can be accessed and modified by more than one software developer at a time",

added; and Blackwell, [0245], "The development, integration, and/or testing of a complex software system typically involved multiple programmers in a variety of groups").

Per Claims 7-12:

These are the computer program product versions of the claimed method discussed above (claims 1-6), where in all claim limitations also have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per Claims 13-18:

These are other method versions of the claimed method discussed above (claims 1-6), where in all claim limitations also have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anna Deng whose telephone number is 571-272-5989. The examiner can normally be reached on Monday to Friday 9:30 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached at 571 –272-3708. The fax phone number for the organization where this application or proceeding is assigned is 703-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anna Deng A. D.

June 8, 2007

WEI ZHEN
SUPERVISORY PATENT EXAMINER